

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (withdrawn) A method for producing a vaccine composition containing an immunogenic determinant as the active ingredient, the method comprising the steps of:
  - a. treating prokaryotic cells under conditions such that an increase of the concentration of trehalose within the prokaryotic cells is induced;
  - b. using the induced cells containing trehalose as the immunogenic determinant in the production of a vaccine composition.
2. (withdrawn) The method as claimed in claim 1, wherein the treatment of the prokaryotic cells is carried out to achieve a concentration of trehalose within the cells of at least 10 mM.
3. (withdrawn) The method as claimed in claim 1, wherein the increase in concentration of trehalose is achieved by synthesis of trehalose within the cell.
4. (withdrawn) The method as claimed in claim 1, wherein the condition causing the increase of trehalose concentration within the cells is heat, osmotic shock, suppression of degradation of trehalose, or genetically engineered constitutive synthesis of trehalose within the cells.
5. (withdrawn) The method as claimed in claim 1, wherein the induced cells containing the trehalose are dried prior to their use in the production of the vaccine composition.
6. (withdrawn) The method as claimed in claim 5, wherein the cells are dried in the absence of added extra-cellular carbohydrate glassy stabilising matrix.

7. (withdrawn) The method as claimed in claim 1, wherein the prokaryotic cells are bacteria, protozoa or fungi.
8. (withdrawn) The method as claimed in claim 1, wherein the prokaryotic cells are treated by cultivating them in a medium containing one or more solutes and having an osmolarity of at least 350 mOsmoles.
9. (withdrawn) The method as claimed in claim 8, wherein the solute is selected from the group consisting of sodium, potassium, calcium and ammonium salts, and combinations thereof.
10. (withdrawn) The method as claimed in claim 1, wherein the prokaryotic cell has been modified so as to synthesise trehalose.
11. (withdrawn) the method as claimed in claim 1, wherein the treatment of the cells is carried out to achieve a concentration of trehalose within the cells of at least 100mM.
12. (withdrawn) The method as claimed in claim 1, wherein the prokaryotic cells containing the induced trehalose are killed prior to use in the vaccine composition.
13. (withdrawn) The method as claimed in claim 1, wherein the treatment of the prokaryotic cells is carried out in vitro.
14. (currently amended) A vaccine composition comprising an immunogenic determinant, wherein the immunogenic determinant includes a prokaryotic cell or cell residue of a prokaryotic cell, which cell has been treated to increase the concentration of trehalose therein without subsequent drying of the cell in the presence of a non-reducing carbohydrate which contains at least 10mM of trehalose within the cell.

15. (currently amended) A vaccine composition comprising an immunogenic determinant produced by the method comprising the steps of:

- a. treating prokaryotic cells under conditions such that an increase of the concentration of trehalose within the prokaryotic cells is induced; and
- b. using the induced cells containing trehalose as the immunogenic determinant in the production of a vaccine composition, without drying the cells in the presence of a non-reducing carbohydrate.

16. (previously presented) The vaccine composition as claimed in claim 14, comprising an adjuvant for the immunogenic determinant.

17. (previously presented) The vaccine composition as claimed in claim 14, comprising an aqueous carrier.

18. (cancelled)

19. (cancelled)

20. (withdrawn) A method for treating an animal with a vaccine, comprising administering to said animal a pharmaceutical effective amount of a vaccine composition as claimed in claim 1 to elicit an immune response in the animal.

21. (withdrawn) The method as claimed in claim 20, wherein the vaccine composition is administered by injection.

22. (withdrawn) A prokaryotic cell which has had its genetic structure modified so as to remove or inhibit that portion of the genetic structure which inhibits or restricts the synthesis of

trehalose by the cell, whereby the cell constitutively synthesises trehalose within the cell as it grows.

23. (new) A vaccine composition according to claim 14, wherein the cell contains at least 10mM of trehalose.